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IPW

June 3, 2004

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Re: U.S. Utility Patent Application
Application No. 10/673,669; Filed: September 30, 2003
For: **Integrated Displays Using Nanowire Transistors**
Inventors: Stumbo *et al.*
Our Ref: 2132.0080001

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement;
2. Two (2) sheets of Form PTO-1449 listing sixteen (16) reference documents;
3. One (1) copy of each reference document (excluding the U.S. patent documents); and
4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
June 3, 2004
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

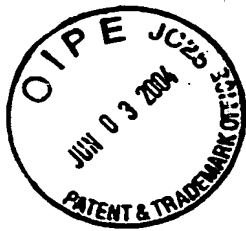
Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Michael D. Specht". The signature is stylized with a large "M" and "S".

Michael D. Specht
Attorney for Applicants
Registration No. 54,463

DJF/MDS/mlb
Enclosures
267597_1.DOC



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

STUMBO *et al.*

Appl. No.: 10/673,669

Filed: September 30, 2003

For: **Integrated Displays Using
Nanowire Transistors**

Confirmation No.: 2029

Art Unit: 2673

Examiner: (to be assigned)

Atty. Docket: 2132.0080001

Information Disclosure Statement

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☒ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.
- ☐ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
 - ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart

foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).

☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

☐ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$_____ in payment of the fee under 37 C.F.R. § 1.17(p).

☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$_____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:

☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).

- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- ☐ 6. A concise explanation of the relevance of the non-English language document(s) appears below:
- ☒ 7. Copies of the documents are submitted herewith, with the exception of AA1-AC1 (see box 9 below).
- ☐ 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

- ☒ 9. No copies of U.S. patent application publications cited on the attached Form PTO-1449 are submitted in accordance with 1276 OG 55 because this application was filed after June 30, 2003.
- ☐ 10. It is expected that the examiner will review the prosecution and cited art in the parent application no(s). _____ in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael D. Specht
Attorney for Applicants
Registration No. 54,463

Date: 6/3/04

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

2132.0080001

APPLICATION NO.

10/673,669

INVENTORS

STUMBO *et al.*

FILING DATE

September 30, 2003

ART UNIT

2673

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	2001/0054709 A1	12/2001	Heath <i>et al.</i>			
	AB1	2002/0130311 A1	09/2002	Lieber <i>et al.</i>			
	AC1	2002/0130353 A1	09/2002	Lieber <i>et al.</i>			
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ1	WO 01/03208 A1	01/2001	WO			N/A
	AK1	WO 02/17362 A2&A3	02/2002	WO			N/A
	AL1	WO 02/48701 A2&A3	06/2002	WO			N/A
	AM						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN	1	Chung, S.-W. <i>et al.</i> , "Silicon nanowire devices," <i>Applied Physics Letters</i> , Vol. 76, No. 15, pp. 2068-2070 (April 10, 2000).
	AO	1	Duan, X. <i>et al.</i> , "High-performance thin-film transistors using semiconductor nanowires and nanoribbons," <i>Nature</i> , Vol. 425, pp. 274-278 (September 18, 2003).
	AP	1	Tans, S.J. <i>et al.</i> , "Room-temperature transistor based on a single carbon nanotube," <i>Nature</i> , Vol. 393, pp. 49-52 (May 7, 1998).
	AQ	1	Tomita, S. <i>et al.</i> , "Transistor sizing for AMLCD integrated TFT drive circuits," <i>Journal of the SID</i> 5/4, pp. 399-404 (1997).
	AR	1	Yamada, T., "Analysis of submicron carbon nanotube field-effect transistors," <i>Applied Physics Letters</i> , Vol. 76, No. 5, pp. 628-630 (January 31, 2000).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



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	AB						
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	AG						
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	AI						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN	<u>2</u>	King, T.-J., <i>Homework Assignment #3 Solutions</i> , Handout #29, University of California, College of Engineering, Department of Electrical Engineering and Computer Sciences, EE290D, 3 pages (Spring 1999).
	AO	<u>2</u>	6.976 Flat Panel Display Devices: Lecture 14, 32 pages of slides (date unknown).
	AP	<u>2</u>	Lecture 15: 6.976 Flat Panel Display Devices, 39 pages of slides (Spring 2001).
	AQ	<u>2</u>	Lundström, D. and Yilbar, J., <i>Liquid Crystal Materials</i> , 43 pages, from http://www.kth.se/fakulteter/tfy/kmf/lcd/lcd~1.htm , (May 18, 1998).
	AR	<u>2</u>	Tyson, J. <i>How LCDs Work</i> , 7 pages, from http://electronics.howstuffworks.com/lcd.htm/printable , (1998).

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DATE CONSIDERED

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